



Shown With Optional Stand

Horizontal Laminar Flow Hood B-Series



Our clean benches are useful for mycology, food microbiology, plant and mammalian cell culture, clinical pharmacy and hospital protocols, cleanrooms, semiconductor assembly, pharmaceutical, aerospace and medical devices industries, where product protection is required.

General

Our laminar flow clean benches incorporate a number of features to ensure operator comfort and enhanced productivity.

The clean bench work surface is constructed of stainless steel, making the work one easy to clean. The interior surface will not chip, rust or generate particles.

The spillage-retention work top design with a recessed central area ensures that all liquid spills are contained.

The ergonomically designed work surface with a curved front edge is designed for maximum operator comfort. A raised edge at the back of the work zone prevents spills from damaging the filter.

The instant-start 5000k warm white lighting operates on an electronic ballast to reduce heat, improve comfort and conserve energy.

Construction

All clean benches products are manufactured for the most demanding laboratory applications.

All components are designed for maximum chemical resistance and enhanced durability for a long service life.

The main body of the clean bench is constructed of industrial-grade electro-galvanized steel.

All cabinet components are clean room compatible.

Isocide eliminates 99.9% of surface bacteria within 24 hours of exposure.

Transparent tempered glass side panels enhance visibility and create a more comfortable work environment for the operator as opposed to conventional stainless steel or painted steel sides. (**Stainless steel side panels available.)

Tempered glass is scratch and abrasion resistant, does not create particulates, and is easy to clean.

Filtration

The enhanced filtration system on the B series is designed to provide the highest level of air quality within the work zone, meeting all relevant standards (see technical specifications for details).

All laminar flow clean benches provide ISO Class 3 air cleanliness within the work zone as per ISO 14644.1, significantly cleaner than the usual Class 5 classification on cabinets offered by the competition.

High quality ULPA filters, utilizing an improved mini-pleat separation technique to maximize surface area improving efficiency and extending the life of the filter. ULPA filters operate at a typical efficiency of >99.999% on 0.1 to 0.3 micron sizes, providing superior protection over conventional HEPA filters.

An additional disposable pre-filter on all models traps large particles in the inflow air prior to reaching the main filter, protecting it against damage and prolonging its life.

Integral filter metal guard on the ULPA filter prevents accidental damage to the filter media; seamless filter gasket is permanently molded on the filter frame and will not deteriorate over time; aerosol (DOP/PAO) challenge test port included.

Blower Efficiency

Our laminar flow clean benches incorporate permanently lubricated direct drive centrifugal blowers.

The energy efficient external rotor motor design reduces operating costs and has extremely low noise and vibration.

The intelligent blower system compensates airflow as the filter becomes loaded, ensuring optimum efficiency and product protection.

Horizontal Laminar Flow Cabinets

Controller

Rocker Switch and Minihelic Gauge

Built-in solid state variable speed controller is superior to conventional “step” controllers and offer infinite adjustment from zero to maximum setting.

Standard cabinet control system consists of separate switches for blower, lights, UV light (UV light switch is interlocked with the light and blower switch for enhanced safety), and socket plus a pressure gauge for filter monitoring.

Safety

All components used in the products meet or exceed all applicable safety requirements.

Each cabinet is individually factory tested for safety and performance in accordance with international standards.

UL listed or UL recognized, electrical components ensures superior electrical safety for the operator.

All laminar flow clean benches meet general safety requirements set by independent testing laboratories (see technical specifications for details).

All GAH models have been type tested to the EN 12469:2000 for cross contamination and product protection using microbiological testing methods.

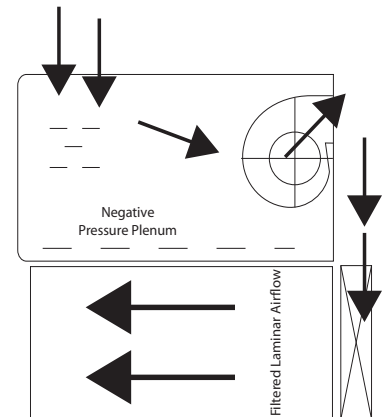
Cabinet Airflow Profile

Room air is taken in from the top of the cabinet through a disposable pre-filter with 85% arrestance; this serves to trap larger particles and increase the life of the main filter.

Air is forced evenly across the ULPA filter(s); the result is a stream of clean laminar air within the work zone of the cabinet; this dilutes and flushes all airborne contaminants from the interior.

A nominal filter face velocity of 0.45 m/s or 90 fpm ensures that there is a sufficient number of air changes within the enclosed area of the cabinet in order to maintain cleanliness.

The purified air travels across the internal work zone of the cabinet in a horizontal, unidirectional stream and leaves the main work chamber across the entire open front of the cabinet.



Specs	GAH-3F-B	GAH-4F-B	GAH-5F-B	GAH-6F-B
External Dimensions (Width x Depth x Height)	40.7" x 29.5" x 49.4	52.8" x 29.5" x 49.4	64.8" x 29.5" x 49.4	76.8" x 29.5" x 49.4
Internal Work Zone Width x Depth x Height	34.5" x 23.6" x 28.3"	46.5" x 23.6" x 28.3"	58.5" x 23.6" x 28.3"	70.5" x 23.6" x 28.3"
Air Volume	1021 m ³ /h 598 cfm	1376 m ³ /h 806 cfm	1732 m ³ /h 1015 cfm	2088 m ³ /h 1224 cfm
Laminar Airflow Velocity	Average of 0.45 m/s or 90 fpm at initial Set Point			
Main Filter Type	ULPA filter with integral metal guards and filter frame gaskets; fully compliant with EN1822 and IEST-RP-CC001.3 requirements			
Main Filter Efficiency Rating	99.999% at particle size between 0.1 to 0.3 microns			
Pre-Filter	Disposable and non-washable polyester fibers with 85% arrestance / EU3 rated			
Sound Emissions Per IEST-RP-CC002.2*	<58 dBA	<59 dBA	<60 dBA	61 dBA
Light Intensity	> 1800 Lux (>167 foot candles)			
Main Body Construction	1.2 mm / 0.05" / 18 gauge electro-galvanised steel with white oven-baked epoxy powder-coated finish.			
Side Window Construction	1.5 mm (0.06") 18 gauge stainless steel, grade 304			
Work Surface Construction	UV absorbing tempered glass, 5 mm (0.2"), colorless and transparent			

	Cabinet Performance	Air Quality	Filtration	Electrical Safety
Standard Compliance	En 12469 IEST-RP-CC02.2, Worldwide	ISO 14644. 1 Class 3, Worldwide	IEST-RP-CC001.3 IEST-P	UL 61010-1 USA